

Appl. No. 09/903,612

Reply to Office Action of: March 3, 2006

REMARKS

Applicant wishes to thank the Examiner for reviewing the present application and for taking the time to participate in the telephone interview with the undersigned on June 12, 2006. As discussed in the above-noted interview, the above-described amendments are believed to overcome the Examiner's rejections under 35 U.S.C. 102 and 103 and serve to clarify the nature of the invention claimed.

Claim Amendments

Independent claims 1, 5 and 10 are amended as discussed in the telephone interview to clarify the nature of the claimed invention, in particular, to indicate that the cryptographic functions are provided below and thus transparent to the network layer. A discussion of such amendments follows under the next heading.

Claim 4 is amended replacing "stack" with "layer" on lines 3 and 5.

Claim 6 is amended replacing "PPP" with "data link" on line 2.

New dependent claims 11-15 are added, each being ultimately dependent on amended claim 1. Claim 11 specifies the "other layer" in claim 1 as being the data link layer. Support for claim 11 can be found on page 4, line 4 of the application as filed. Claim 12 specifies the datagrams as being PPP datagrams. Support for claim 12 can be found on page 4, line 25. Claim 13 specifies the encapsulated data packets as being IP data packets. Support for claim 13 can be found on page 4, line 24. Claim 14 specifies that the modifying of the data packets comprises IPsec tunneling. Support for claim 14 can be found on page 6, lines 1 and 6-10. Claim 15 specifies the referencing of the security policy as comprising a review of a set of selectors being one or more of a destination IP address and a transport layer port. Support for claim 15 can be found on page 4, line 30.

No new subject matter is believed to have been added by way of the above amendments.

Discussion of Amended Claims 1, 5 and 10

As noted above, independent claims 1, 5 and 10 are amended to clarify the nature of the claimed invention. For example, claim 1 is directed to a method for providing cryptographic functions to data packets below the network layer of a network stack. This is also done

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transparent to the network layer. In the present application, such cryptographic functions are exemplified as being the application of an IPSec protocol. This may be useful where, e.g., it is not feasible to implement IPSec or other security at the network layer (page 2, lines 8-11).

Amended claims 1, 5 and 10 specify that datagrams that are transferred between the network layer and an other layer below the network layer are intercepted. Such interception is transparent to the network layer as it is done at a location below the network layer. For example, a datagram outbound of the network layer has a header footer applied that encapsulate a data packet. The header and footer are associated with the transfer from the network layer to another layer in the stack (e.g. PPP). The datagrams are intercepted, decapsulated, examined and processed if necessary to provide cryptographic functions according to a security policy. The datagrams are then reconstructed so as to maintain the transparency of the application of such cryptographic functions as the datagrams continue along the network stack.

Applicant has removed specific reference to PPP in claims 1, 5 and 10, as the principles recited in the claims are applicable to other types of datagrams present below the network (e.g. SLIP – see page 4, line 4). New claims 11 and 12 are directed to an embodiment where the other layer is the data link layer specifically (claim 11) and further, the datagrams are PPP datagrams (claim 12).

Claim Rejections

Claims 1-3, 5 and 8-10 have been rejected under 35 U.S.C. 102(e) as being anticipated by Badamo. As discussed in the telephone interview, Badamo does not teach intercepting datagrams below the network layer and decapsulating, examining, modifying and reconstructing the datagrams such that these operations are transparent to the network layer. Therefore, Badamo does not teach every element of the claims and cannot anticipate.

Claim 4 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Badamo in view of Ylonen; and claims 6-7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Badamo in view of Lantto. As also discussed in the telephone interview, neither Ylonen nor Lantto teach what is missing from Badamo and for at least that reason, claims 4 and 6-7 are believed to distinguish over the references cited.

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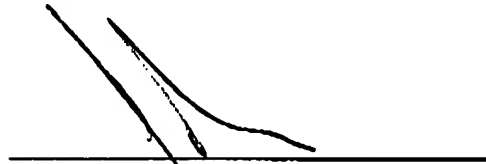
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Summary

In view of the foregoing, Applicant believes that all pending claims, namely claims 1-15 distinguish over the references cited by the Examiner and as such are in condition for allowance.

Applicant requests early reconsideration and allowance of the present application.

Respectfully submitted,



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Date: 28 June, 2006

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